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THE SEPTEMBER COVER

The college recently conducted an experiment which involved historic New Harmony. The September cover shows old Number 2, the men's dormitory of the Rappites. This building housed the main school of the Owenites and was the original home of the Pestalozzian system in America. The building is perhaps the best-preserved of the public buildings dating from the time of the communal experiments at New Harmony.

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A Comparison Of Site Recitals With More Conventional Modes Of Teaching History[1]

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The Indiana General Assembly of 1939 established the New Harmony Memorial, created a Commission to administer it, and provided a one-mill tax for four years to finance it. The General Assembly established the Memorial primarily as an educational project, and authorized the enlistment of Indiana's higher institutions of learning. Ross F. Lockridge was appointed Director of the New Harmony Memorial Commission, and the educational aspect of his work consisted largely of his giving site recitals at New Harmony to school groups about the history of the Rappite and Owenite communal settlements there and their influence on later life in Indiana and in America at large. The site recitals consisted of impressive and dramatic lectures by Mr. Lockridge on the sites where history was made. Indiana State Teachers College's part in the project

consisted of comparing the value of site recitals with that of more conventional modes of teaching history.

Preparing the Tests

Grossly considered, the procedure of experiment consisted of giving site recitals to two groups of senior-high-school pupils, teaching the same subject matter to two similar groups, and measuring results. The principal, and most objective, device for measuring results was new-typed tests, and the preparation of the tests was the first step in the experiment.

Two tests were prepared. One was a multiple-choice test of 125 items, each with five alternatives. The first 100 items were designed to measure pupils' knowledge of facts. Forty-nine of them pertained to the Rappites, 47 to the Owenites, and four to both. The remaining 25 items were designed to measure pupils' historical judgment, or their ability to use historical facts.

All the second test was designed to measure pupils' use of facts. The test consisted of 50 statements, and after each were spaces in which the pupils could check whether they agreed with it, disagreed with it, or were uncertain. The 50 statements consisted of 25 pairs of conflicting statements, listed in a chance arrangement as a result of shuffling, and thereby provided a measure of each pupil's consistency. Some of the statements in the consistency test covered items found in the multiple-choice test.

Although the chief difference between the tests was their form, two separate purposes were sought by them. The first 100 items of the multiple-choice test were designed to mea-

[1]Many people assisted or co-operated in making this experiment. Those who deserve acknowledgment most are Ross F. Lockridge and Meribah Clark, for conducting site recitals and teaching classes, Wilma Jane Shannon, for clerical assistance, and Orvel E. Strong, for making statistical calculations. To all these, and the numerous other teachers and pupils who co-operated, the writer is deeply grateful.

The editor should not be accused of using his position of editor as a means for publishing his own writings. *The Teachers College Journal* exists partly for the purpose of publishing productions from the Division of Research, of which the editor was director before he was made editor. He contributed frequently to The Journal before he became editor and sees no good reason why he should cease.

sure factual learnings; the last 25 items of it, and all those of the other test, were designed to measure pupils' ability to use historical facts. In preparing the non-factual items, therefore, particular attention was given to measuring pupils' attainment of objectives for the study of history which are propounded by reputable authorities.[2]

Since Ross F. Lockridge, Director of the New Harmony Memorial Commission, had written extensively about New Harmony and was to have a prominent part in the experiment later, his writings became the basis for facts used in the first 100 items of the test. The correct answers to the non-factual test items were matters of opinion. In order to determine the correct answers to them, therefore, a jury of experts was used.

After the tests were mimeographed, the 75 non-factual items were submitted to the six members of the Social Studies Department of Indiana State Teachers College.[3] Also, the professors were given sufficient writings of Lockridge's to provide a factual basis for their judgments. Their opinions, supplemented by the writer's, determined the correct alternatives for the non-factual multiple-choice items and determined whether the statements of the consistency test were ones with which a high-school pupil should agree or disagree. In only six items of each type were the decisions based on so few as four of the seven judges' opinions. Usually the majority was heavier, often being unanimous. On one of the multiple-choice items, and on six of the statements in the other test, the judges disagreed to such extent that the items were disregarded later in scoring pupils' responses.[4] Thus the judgment test was reduced to 68 items.

Equalizing the Experimental Groups

The pupils in senior-high-school social-studies classes of the Laboratory School of Indiana State Teachers College were the subjects in the experiment. These were divided into four groups as nearly equal in age, sex, grade, placement, and intelligence as possible. When a pupil in one group could not be matched with others in the three other groups according to all criteria of classification, sex or grade placement were sacrificed before intelligence. Therefore, after some dozen pupils were dropped because of their absence from school during any part of the experiment, the pupils whose test scores were used in the statistical data of the experiment formed groups with remarkably similar average IQ's. The details of the number of pupils in the groups and their intelligence, are shown in Table I.

TABLE I
COMPOSITION OF THE PUPIL GROUPS

Groups	Number of Pupils	Mean IQ's
I		
IQ's above 110	11	116.55
IQ's below 90	4	77.75
IQ's of 90 to 110	17	101.41
Total	32	103.66
II		
IQ's above 110	9	117.22
IQ's below 90	4	81.75
IQ's of 90 to 110	16	101.56
Total	29	103.69
III		
IQ's above 110	10	118.70
IQ's below 90	6	80.83
IQ's of 90 to 110	16	102.81
Total	32	103.66
IV		
IQ's above 110	7	116.71
IQ's below 90	4	85.75
IQ's of 90 to 110	18	102.67
Total	29	103.72

Quite as satisfactory results were possible with regard to the ages of the pupils in the four groups. With age at their last birthdays as the criterion of pupils' ages, the median age for the pupils in each group was sixteen. Almost as satisfactory results were obtained in maintaining a balance between the sexes. Groups II and III, which are compared in the statistical data of this report, had the same number of pupils, but one more boy and one less girl in Group II than in Group III. Exactly the same is true with Groups II and IV, which likewise are compared in the statistical data of this report. The least satisfactory phase of the grouping was in respect to grade placement. Group IV had slightly more upperclassmen than Group II, and Group III considerably more than Group I.

Instructing the Four Groups

On October 15, 1941, Group I was taken to New Harmony for a site recital by Ross F. Lockridge, and on the same day Group III was instructed on the same subject matter in the Laboratory School by Meribah Clark, teacher of social studies in the Laboratory School and president of the Indiana Council of Social Studies. On October 16, Group I was taken to New Harmony for a site recital by Miss Clark, while Group IV was instructed in the Laboratory School by Mr. Lockridge. Thus, Miss Clark instructed Group I by the site-recital method at New Harmony and Group III by more conventional procedures at home, and Mr. Lockridge used the site recital with Group II at New Harmony and more conventional procedures with Group IV in the Laboratory School. Therefore, comparisons for results of the experiment are between Groups I and III and between Groups II and IV. The duration of instruction with all groups was the same—three hours and ten minutes. Neither Miss Clark nor Mr. Lockridge saw the tests before meeting their groups on October 15.

Both teachers were free to use whatever teaching procedures they wished with their groups in the Laboratory School. All pupils in those groups were provided at the beginning of the teaching period with co-

[2]Two authorities were consulted: Robert Earl Swindler, *Social Studies Instruction in the Secondary Schools*, (Prentice-Hall, 1933); Edgar Bruce Wesley, *Teaching the Social Studies*, (D. C. Heath, 1937).

[3]This group included Dr. Clement T. Malan, who a few weeks later was elected State Superintendent of Public Instruction of Indiana.

[4]In all instances except the six the majority opinions of the jury were consistent. That is, they agreed with 19 statements and disagreed with their 19 opposite or companion statements. These 19 pairs of opposing statements were used later in the experiment to gage pupils' consistency.

of *Historic New Harmony*, a four-thousand-word history of New Harmony prepared by the writer.[5] Miss Clark and Mr. Lockridge, who received copies of this brochure in advance, were told that it contained all the information about New Harmony needed by a pupil to pass the tests.

Although the two teachers used rather different procedures with their classes in the Laboratory School, the pupils' interest in both classes was good. Mr. Lockridge lectured much, used the brochures little, used a map of Indiana some, and directed pupils' attention to a glossary of proper names used in his lectures. Miss Clark lectured some, used the brochures some, showed lantern slides of buildings, objects, and personages of New Harmony, and used maps of Indiana and of New Harmony. The instruction in both groups was in three consecutive forenoon class periods, with five-minute intermissions, and the first afternoon class period.

New Harmony was not talked about by the two groups which went to New Harmony while driving to and from the place in a large bus. Thereby the two groups taught by site recitals had the same number of minutes of instruction as the two which remained at home.

Just as the procedures followed by Miss Clark and Mr. Lockridge in the Laboratory School differed, so did they in their site recitals. The interest was good with both. Mr. Lockridge made no use of the glossaries of proper names, while Miss Clark did. The pupils were given no instructions concerning note-taking, but most of those in the Lockridge group and all those in the Clark group took notes, and some of Miss Clark's pupils reviewed their notes after the site recital ended but before taking the test.

[5]This was largely a revision of Lockridge's *The New Harmony Movement*, and was made to cover all factual items in the test and omit anything not needed for the test. Additions to Lockridge's earlier brochure were from his other writings, so the brochures in the hands of the Laboratory School pupils were largely Lockridge's.

The two instructors followed their individual procedures during the site recitals. Mr. Lockridge lectured without notes, while Miss Clark followed notes rather closely. Mr. Lockridge gave a few long lectures, one as long as an hour and 18 minutes, and directed tours between lectures, while Miss Clark had several short lectures, with none longer than 34 minutes, and directed tours between lectures. The writer was present throughout both site recitals and checked items of the factual test as they were covered in the recitals. When he saw that Mr. Lockridge was leaving out an item, he asked a question which caused Mr. Lockridge to cover it. Miss Clark, however, preferred that the writer wait until her recital ended and then supplement by a lecture of his own with the points she had omitted.

Administering the Tests

Since the mimeographed test contained several words which the investigator suspected might be outside of the vocabularies of the high-school pupils, he and the head of the English Department of the Laboratory School prepared lists of words about which they were suspicious and made such words the subjects of drill in the pupils' regular English classes a few days before the experiment. The pupils never suspected at the time that there was any connection between their word study and the experiment. As a further precaution against any pupil's failure on a test item because of his lack of understanding of the item, all groups were supervised during the tests and each pupil's legitimate questions answered individually.

The pupils did not know when the experiment started that there would be a test. The first-day groups began to suspect it, however, by the middle of the day. The second-day groups learned it from the first-day pupils. They were told, therefore, that the tests would not effect their school marks but that they should do their best nevertheless.

Each group was tested immediately after being instructed, the two home groups in their classrooms, and the two groups at New Harmony in the high-school building there. Glossaries and brochures were collected before the tests began. The test in each group was introduced by a short explanation of purposes and procedures. The multiple-choice test was given first, and as pupils finished it and handed in their papers they were given the shorter test. The examinations were well supervised, and each pupil was allowed time to finish.

The test results on their first taking showed immediate learnings. The same tests were given to all groups at once seven weeks later to see how much had been retained, for by that time all pupils probably had forgot about all they ever would. The Laboratory School teachers had been asked to avoid consideration of New Harmony in the meantime. The second giving of the test caught all pupils by complete surprise.

Results of Factual Tests

A summary of the results of the factual test as a whole, on both the first and second testings, is shown in Table II. The data in the table distinguish between pupils of superior intelligence, normal intelligence, and inferior intelligence. Also, they are

TABLE II
SUMMARY OF RESULTS OF TESTS ON FACTUAL ITEMS

Pupils Compared	Mean Scores by Groups							
	I	III	Diff.	Chances	II	IV	Diff.	Chances
First testing								
IQ's above 110	71.63	78.10	- 6.47	89	71.89	78.29	-6.40	99
IQ's below 90	46.25	72.17	-25.92	100	55.25	64.50	-9.25	86
IQ's of 90 to 110	61.11	74.50	-13.39	99	69.44	71.27	-1.83	70
Total	62.88	75.19	-12.31	100	68.24	72.03	-3.79	91
Second testing								
IQ's above 110	61.09	64.70	- 3.61	80	66.78	61.29	5.49	89
IQ's below 90	40.75	58.33	-17.58	100	47.25	50.00	-2.75	66
IQ's of 90 to 110	52.71	56.81	- 4.10	80	62.31	58.78	3.53	89
Total	54.09	59.56	- 5.47	87	61.62	58.17	3.45	84

arranged in columns in such manner as to make comparisons between Groups I and III (the two Clark groups) and Groups II and IV (the two Lockridge groups) easy. After each pair of groups are columns showing the difference between each pair of comparable means and the number of chances in one hundred that the difference between the true means is greater than zero. The differences are written with minus signs when they favor a classroom group and without minus signs when they favor a site-recital group.

Only a few of the differences between comparable means shown in Table II had complete statistical significance. The chances in one hundred that the difference between the true means were greater than zero are high enough in general, however, to warrant the following conclusions concerning the learnings by the various groups as revealed by the factual test as a whole.

1. *On the first testing the home groups did better in every comparison than the site-recital groups.*

2. *In both testings, and with both teachers, the pupils of subnormal intelligence in the regular classroom groups excelled their peers in the site-recital groups more than the pupils of normal or superior intelligence in classroom groups excelled theirs in site-recital groups.*

3. *As should have been expected, in light of known laws of educational psychology, the mean scores on the second testing were lower for all corresponding groups than those on the first testing.*

4. *The superiority of the home groups over the site-recital groups was less, proportionally, in all cases on the second testing than on the first. In other words, the site-recital groups remembered better the facts they learned than the home groups, even if they did not learn so many. In fact, Mr. Lockridge's site-recital group (with exception of those of lowest mentality) made better scores on the second testing than his home group. Furthermore, his site-recital group did better on the second testing than any other group.*

This fourth conclusion may be the most significant one drawn from the factual test. The site-recital pupils' better retention of facts may be due to a greater impressiveness of their experiences. Again, it may be that the pupils who went to New Harmony became interested more than those who stayed home, and therefore talked their experiences over with their parents and friends, or reviewed them mentally, more than the other pupils and thereby kept their learnings fresher.

5. *Mr. Lockridge proved more successful at giving site recitals than Miss Clark, and Miss Clark proved more successful in classroom procedure than Mr. Lockridge. Each teacher excelled at his specialty.*

6. *As should have been expected, the pupils with superior intelligence excelled those of normal intelligence, and the normal ones excelled the subnormal, as a rule.*

The conclusion just stated suggests the need for showing the correlation between intelligence and achievement on the factual test. Table III does this. The coefficients of correlation shown in the table are as high as normally found between intelligence and achievement of high-school pupils except for Group III.[6]

In general, the pupils in each group ranked about the same on the first testing as on the second. The coefficients of correlation between the rank order of pupils on the two testings were .92, .85, .89, and .82, respectively, for Groups I, II, III, and IV.

Considerable significance attache to which items of the factual te were missed most frequently an which least frequently by the variou groups. As was stated earlier, 49 o

TABLE III
COEFFICIENTS OF CORRELA TION BETWEEN IQ'S AND FACTUAL TEST SCORES

Groups	First Testing	Second Testing
I	.55	.49
II	.49	.45
III	.05	.25
IV	.51	.50

the 100 factual items pertained to th Rappites and 47 to the Owenite Since the remains from the Rappi settlement at New Harmony a largely material, whereas those fro the Owenites are largely cultura there is no reason why a group high-school pupils should be expecte to learn any more about the Owe ites by studying them at the site their abode than elsewhere. It is re sonable, however, to expect them learn more about the Rappites at th place. That such suppositions we partly borne out in fact is proved Table IV.

Table IV shows that in the fir testing the groups which remained home (III and IV) did considerab better on the Owenite items tha their comparable site-recital grou (I and II) but that there were n wide differences between the grou in regard to the Rappite items. Th wide differences between the grou on the Owenite items had large faded by the time of the second te

[6]Leonard V. Koos and others, *Administering the Secondary School*, (American Book Company, 1940), p. 259.

The coefficients of correlation for Group III were influenced largely by two erratic boys. One, with an IQ of 109, made only 7 on the factual test the first time and 9 the second. Each time, however, he did reasonably well on the judgment test. The other boy was shown by the records of the Laboratory School to have an IQ of only 79, but his test scores in all instances were exceptionally high. He made 90 and 82 on the factual test and 54.5 and 55 on the judgment test. Since the intelligence data of this investigation were based on group tests, there was reason to b lieve this boy's recorded IQ was e roneous. Therefore, the investigat requested the Laboratory Schoo clinical psychologist to give the b an individual test. She did, and su mitted the following report: "H reaches ceiling on the Binet, form He has no failures on Superior Ad III. His IQ computed on this basis 152 but is probably actually high than that." Thus, with the on known genius in the whole expe ment classified as subnormal, it obvious that Group III was impro erly constituted and that its test n dians are not fairly comparable w the others.

TABLE IV

AVERAGE NUMBER OF STUDENTS IN EACH GROUP MISSING THE RAPPITE FACTUAL TEST ITEMS AND THE OWENITE FACTUAL TEST ITEMS

Types of Items	Group I	Group III	Group II	Group IV
First testing				
Rappite	8.67	8.37	5.84	6.55
Owenite	14.98	7.00	12.45	9.54
Second testing				
Rappite	11.54	10.77	7.26	9.32
Owenite	17.72	14.76	14.63	14.74

however: the home groups had forgot more about the Owenite items during the interim than they had about the Rappite items, and more than the site-recital groups had about either the Rappite or Owenite items. The heaviest single loss was with Group III on the Owenite items. Furthermore, Table IV shows Mr. Lockridge, the artist at site recitals, had better success with his site-recital group on the Rappite items, in comparison with his other group, than Miss Clark did. In general, all groups did better in both testings on the Rappite items than on the Owenite.

Coefficients of correlation between the rank orders of items missed in the factual test by the pupils of the various groups help show the extent to which one group missed certain test items more than another group. These correlations are shown in Table V.

TABLE V

COEFFICIENTS OF CORRELATION BETWEEN RANK ORDERS OF FACTUAL TEST ITEMS MISSED BY THE VARIOUS GROUPS

Groups Compared	First Testing	Second Testing
I and II	.69	.77
I and III	.46	.77
I and IV	.63	.75
II and III	.45	.75
II and IV	.77	.85
III and IV	.60	.86

The figures in Table V show considerably higher correlations between the various groups on the second testing than on the first, which means that "after the new had worn off" those things which were remembered by one group were more nearly the same as those by another than before. In general, also, they show higher agreement between the two site-recital groups (I and II), the two home groups (III and IV), the two Clark groups (I and III), and the two Lockridge groups (II and IV), in which either the instructor or the procedure were the same, than between groups in which both the instructors and the procedures differed (I and IV, and II and III). Furthermore, they show higher agreement between the two Lockridge groups (II and IV) than between the two Clark groups (I and III).

That each group was fairly consistent with itself is shown by coefficients of correlations of .85, .90, .72, and .84, respectively, for Groups I, II, III, and IV, between the rank orders of factual items missed on the first and second testings. Group III, shown by Tables II and IV to have changed the most between the two testings, was least consistent.

Consideration of the particular factual items missed most frequently or least frequently by the pupils of the various groups is revealing. The eight items which were missed least frequently by all groups in both the first and second testing are the following. All eight pertained to the Rappites, and all of them related to the bizarre aspects of Rappite life or to material remains easily observable in New Harmony.

18. The Rappites did not mark the graves of their dead because: They believed in an early resurrection.[7]

20. The number of children born during the ten years of the Rappite settlement in Indiana was: 0.

21. The number of civil and criminal cases brought into the courts from the Rappite community was: 0.

26. The construction of the public buildings in the Rappite community was: Very firm and substantial.

31. The Rappites' farm work differed from others' at the time in that: The Rappites marched to the fields and worked with a brass-band accompaniment.

33. The Rappite attitude toward women was such that: They worked in the fields and mills with the men and often became as strong as the men.

36. The clothes of the Rappites were: Plain and unadorned.

38. The footprint rock at the Rapp-Maclure Mansion is said to have been made by: The Angel Gabriel.

There were another eight factual items which stood above all others in their difficulty for all groups in both testings. Five of them related to the Owenites, two to the Rappites, and one to both. Practically all of them related to cold facts which were not connected with the pupils' experiences in any way.

25. The nature of industry in the Rappite community was: Diversified.

68. The chief source of fame of the Owenite community was some of the renowned personages connected with it. Among them was a great woman teacher, whose name was: Marie Duclos Fretageot.

72. The man who introduced the Pestalozzian system of education in America at New Harmony was: William Maclure.

88. The Owen Laboratory Home was built by: David Dale Owen.

89. The chief contribution of the New Harmony communal societies was a number of institutions or movements which are prominent among the worthy elements of modern society. One of these is: Farmers' cooperatives.

96. The New Harmony Library is sponsored and maintained by an organization which was founded by William Maclure, namely the: Workingmen's Institute.

97. A man from New Harmony who served in Indiana's first constitutional convention at Corydon was: Frederick Rapp.

[7] In reproducing these, and other multiple-choice items later, only the correct alternative of each is presented.

100. The three principal respects in which the Rappite and Owenite communities differed were: Form of government, emphasis on religion, and quality of inhabitants.

An item which was much easier for the two site-recital groups than for the two classroom groups on each testing was:

27. The quality of construction of the Rappite public buildings proba bly is best illustrated today by the: Men's dormitory.

One which proved much easier for the classroom groups each time was:

80. The inhabitants of the Owenite community were mostly: Theorists and dreamers.

Some of the test items depended almost on rote, and therefore were missed by all groups much more on the second testing than on the first. The best examples of these are:

3. George Rapp's closest associate was: Frederick Rapp.

44. The site of New Harmony was purchased from the Rappites by Robert Owen for a sum of: 150,000 dollars.

55. Robert Owen's closest associate was: William Maclure.

84. Among the greater contributions of the Owenite community to the State of Indiana was the personages of some of the sons of Robert Owen. One of these was Robert Dale Owen, who became: A leader in the constitutional convention of 1850-51.

It was shown earlier that Group III was crammed the fullest for the first testing and fell the farthest on the second. Among the several items on which the group as a whole fell on the second testing are the following ones, which were missed the first time by only six, three, and one pupils, respectively, but the second time by 28, 25, and 21.

65. The chief source of fame of the Owenite community was some of the renowned personages connected with it. Among them was the Father of American Geology, whose name was: William Maclure.

66. Another of these renowned personages was the Father of American Zoology, whose name was: Thomas Say.

76. On July 4, 1826, the fiftieth anniversary of the signing of the Declaration of Independence, Robert Owen issued a new Declaration of: Mental Independence.

Results of Judgment Tests

Both Miss Clark and Mr. Lockridge were instructed to stress facts in both their site recitals and classroom teaching, and to omit interpretations of facts. They observed the instructions. Therefore, whatever use the pupils made of the facts learned about New Harmony resulted from their own independent judgments and not from Miss Clark's or Mr. Lockridge's influencing them.

The judgment test consisted of 24 multiple-choice items and 44 items from the consistency test. The 44 items were treated the same as true false items in the statistical treatment of their results. If a pupil's reaction in expressing his agreement or disagreement coincided with that of the jury of experts, he was allowed one point on his test score; if it opposed the jury's, he got zero; if he expressed uncertainty, he was allowed one half point. A summary of the results of the judgment test as a whole, on both first and second testings, is shown in Table VI. Table VI is in the same form as Table II.

TABLE VI
SUMMARY OF RESULTS OF TESTS ON JUDGMENT ITEMS

Pupils Compared	Mean Scores by Groups I	III	Diff.	Chances	II	IV	Diff.	Chances
First testing								
IQ's above 110	42.09	43.20	-1.11	66	46.67	43.36	3.31	95
IQ's below 90	31.00	40.58	-9.58	98	29.88	34.38	-4.50	83
IQ's of 90 to 110	36.38	38.59	-2.21	85	37.71	39.08	-1.37	71
Total	37.67	40.41	-2.74	92	39.41	39.53	-0.12	51
Second testing								
IQ's above 110	42.55	44.75	-2.20	75	45.78	45.71	-1.93	78
IQ's below 90	33.00	38.17	-5.17	89	30.13	32.63	-2.50	75
IQ's of 90 to 110	37.68	38.94	-1.26	72	37.91	40.33	-2.42	85
Total	38.77	40.61	-1.84	75	38.66	40.57	-1.91	84

The differences between comparable means in Table VI have less statistical significance in most instances than those in Table II. The following conclusions based on the judgment test, in comparison with the factual test, are drawn in light of the smaller number of chances in one hundred that the differences between the true means are greater than zero.

1. *With exception of the pupils of superior intelligence in Mr. Lockridge's groups (II and IV), the pupils who stayed home excelled comparable site-recital groups in every comparison in both testings. In general, however, the degree of the differences was less proportionally than in the factual test, as well as less significant statistically. In other words, whatever differences the tests revealed were more in the facts of the day's learnings than in judgments based on such facts.*

Such a discovery is not surprising. The number of facts learned in a day might well be expected to differ, but powers of judgment are not acquired in a day. Furthermore, there was no planned element in either the site-recital or the classroom situations to affect judgment.

The higher scores on the judgment test probably were a carry over from the better knowledge of facts which produced the higher scores on the factual test. There was bound to be some correlation between the factual test and the judgment test, for one must know facts before he can use them.

2. *Contrary to the case in the factual testings, the second testing did not show lower scores than the first. In fact, most of them were slightly higher.* This conclusion also should have been expected. Facts are forgot, but not judgment. The longer time for reflection before the second testing could have been expected to result in higher judgment-test scores provided it was not counteracted by the for-

getting of facts basic for judgments.

3. *As in the factual test, the lowest I-Q pupils in the classroom groups showed greater superiority over comparable pupils in site-recital groups on both the first and second testing than obtained with pupils of normal or superior intelligence.*

4. *Again as in the factual test, the pupils with highest intelligence excelled the normal ones, and the normal excelled the subnormal, except in Group III.*

The coefficients of correlation between the IQ's of the various groups of pupils and their scores on the judgment test are shown in Table VII. Like those in Table III, the coefficients are as high as normally found between intelligence and achievement, except for Group III, and it for the same reasons explained before.

TABLE VII
COEFFICIENTS OF CORRELATION BETWEEN IQ'S AND JUDGMENT TEST SCORES

Groups	First Testing	Second Testing
I	.45	.45
II	.64	.57
III	.30	.33
IV	.52	.65

Individual pupils showed more variation between the first and second testings for judgment than for facts. The coefficients of correlation for the four groups between the first and second testings on judgment items were .80, .78, .51, and .74. Again Group III proved to be the most erratic.

Coefficients of correlation between the rank orders of items missed in the judgment test by the pupils in the various groups, shown in Table VIII, unlike those for the factual test, shown in Table V, do not differ greatly between first and second testings or between various groups. The reason for this evidently is that judgment is more stable than memory.

Each group missed about the same items on the judgment test the second time which it did the first. The coefficients of correlation between the rank orders of the judgment items missed by the pupils of the four groups were: .90, 89, .89, .88.

TABLE VIII
COEFFICIENTS OF CORRELATION BETWEEN RANK ORDERS OF JUDGMENT TEST ITEMS MISSED BY THE VARIOUS GROUPS

Group Compared	First Testing	Second Testing
I and II	.81	.87
I and III	.82	.80
I and IV	.78	.84
II and III	.76	.88
II and IV	.86	.92
III and IV	.81	.84

Before getting away from correlations, one other set should be considered. How did the pupils' performances on the factual test compare with their performances on the judgment test? The answer is shown in Table IX. That the correlations should be higher on the second testing, after the effects of fact-cramming had worn off, is understandable. But no theory seems satisfactory to account for Group I's superiority over the others.

TABLE IX
COEFFICIENTS OF CORRELATION BETWEEN PUPIL PERFORMANCES ON THE FACTUAL TEST AND ON THE JUDGEMENT TEST

Groups	First Testing	Second Testing
I	.86	.81
II	.54	.73
III	.55	.67
IV	.65	.72

In order to illustrate the nature of the items in the judgment test, examples of some which proved to be particularly difficult, and some which proved to be rather easy, for all groups in both testings will be reported. The two multiple-choice items which pupils found to be easiest were:

120. Robert Owen was a greater and nobler man than Father Rapp because: He was more broad-minded.

125. If we read a newspaper report that a new colony had been set up at New Harmony which practiced communism and free love, the first thing we should do would be to: Ascertain whether the report were true.

Several of the multiple-choice items were missed by large numbers in all groups. Two examples of that type are:

107. One of the most admirable features of the Rappite community was the people's: Thrift and industry.

121. Our best source of knowledge about the Rappites and Owenites is: Diaries and public documents made or kept by the Rappites and Owenites.

The two statements in the consistency test which all groups found easiest were:

17. The Rappites were childish or cowardly for submitting to the dictation of Father Rapp.

45. The New Harmony experiments prove that communal living, the same as other kinds of living, needs wise guidance.

Of the statements from the same list which were misjudged most frequently, two examples are:

29. Father Rapp probably was as much a fool as a saint.

41. The Rappite and Owenite communities both made great contributions to later American civilization.

Although the consistency test was used largely like a true-false test to get test scores on individual pupils, its original purpose was what its name implies—to measure the consistency of one's reasoning. If a pupil was consistent and indicated his agreement with one statement, he would indicate disagreement with its opposite. By checking through a pupil's test paper, therefore, comparing his reactions on the two items of each of the nineteen pairs of conflicting statements, a measure of his consistency was obtained. He was regarded as consistent on a pair of items if he got both right or both wrong, or if he was uncertain on both. He was regarded as inconsistent if he got one right and one wrong, one right and one uncertain, or one wrong and one uncertain.

Averages showing the degree of consistency or inconsistency of all the pupils in one group did not differ significantly from those for another group. Therefore, it can not be said that either procedure of teaching followed in this experiment resulted in greater consistency of pupils' judgment. Figures supporting

this conclusion are shown in Table X.

Other Measures

If the site-recital procedure of teaching history results in pupils' acquiring a greater interest in history, it has justified itself to that extent. Although it might be expecting too much to hope for one day's experience to change pupils' interests greatly, there is some evidence of increased interest among those pupils who went to New Harmony which one partial to the site-recital procedure might accept as encouragment.

That the pupils who were taken to New Harmony in the experimental groups were interested and enthusiastic about it is certain. Such should be expected. Many of them remarked to the writer on the way home that they hoped to go again, and that they hoped the pupils who were left home would be able to go later. Such attitudes, however, are no indication of permanent interest.

Questions asked by pupils during any teaching procedure are a valid indication of interest, but they did not prove anything for or against site recitals in this experiment. In Miss Clark's home group, 29 questions were asked by pupils, but some of them were shallow ones; during her site recital seven questions (all good ones) were asked. In Mr. Lockridge's home group, only one question a good one) was introduced by a pupil; during his site recital, there were 23, but some of them were rather insignificant. Pupils' questions during the procedure, therefore, merely substantiated a conclusion reached through the factual test data: Each teacher got better results when following his specialty.

Six weeks after the trips to New Harmony were made, Miss Clark volunteered the testimonial that the pupils in her regular classes in the Laboratory School who went to New Harmony were more interested in her subject afterwards than before, but that the other pupils were not. Such support is purely subjective, although maybe valid. More nearly objective support was found by means of an interest questionnaire placed in the hands of the pupils one week before the experiment and again three months after it.

Before the pupils knew there was to be a site-recital experiment, they were given questionnaires during their regular class periods asking them to list the subjects they were taking that semester in 1-2-3-4 order according to their interest in them. In defining the subject they were "most interested in," the instructions stated: "We do not mean that the subject is most valuable, necessarily. We want the one you like best, the one you get the most 'kick' out of." The pupils were advised, furthermore, to "be guided only by the content of the courses" and "not by the teachers who teach them." Obviously, the pupils' responses could not have been loaded to influence the experiment when they did not know there was to be an experiment.

The same questionnaires were administered again just before the end of the semester. At that time there could have been more possibility of the pupils' suspecting a connection with the experiment, but it is not likely.

Table XI shows the results of the interest questionnaires. Since some of the pupils were absent one time or the other, or did not fill out the forms correctly, not all 32, or 29, of each group are included. Since a rank of one is top rank, a smaller average rank afterwards than before means a positive gain.

TABLE X
A COMPARISON OF THE CONSISTENCY OF PUPILS' JUDGMENT

Groups	Mean Number of Times Consistent				Mean Number of Times Inconsistent			
	Right	Wrong	Uncertain	Total	One Right and One Wrong	One Right and One Uncertain	One Wrong and One Uncertain	Total
First testing								
I	6.16	2.09	1.06	9.31	5.33	2.25	1.91	9.69
II	6.69	2.41	.97	10.07	4.43	2.72	1.76	8.93
III	6.81	2.16	.44	9.41	6.09	2.31	1.19	9.59
IV	6.45	2.45	.93	9.83	4.45	3.51	1.41	9.17
Second testing								
I	6.47	2.16	1.31	9.94	4.59	2.88	1.39	9.06
II	5.86	2.21	1.76	9.83	4.28	3.28	1.62	9.17
III	7.03	2.22	.72	9.97	5.19	2.34	1.50	9.03
IV	6.66	1.59	1.31	9.55	4.17	3.48	1.79	9.45

TABLE XI
AVERAGE RANK OF SOCIAL STUDIES IN PUPILS' INTERESTS BEFORE AND AFTER THE EXPERIMENT

Groups	Number of Pupils	Before	After	Gain
I	26	2.62	2.38	.24
II	25	2.35	2.31	.04
III	26	2.65	2.65	.00
IV	23	2.70	2.78	-.08

Perhaps the best comparison of the site-recital pupils with the control groups in respect to those more sub-

jective values which the experiment should measure, came from letters which the pupils wrote to Miss Clark or Mr. Lockridge right after the experiment was conducted.

Teachers of classes in social studies in the senior-high-school grades of the Laboratory School were instructed to invite their pupils to write letters to Mr. Lockridge or Miss Clark containing any comments or reactions toward the experiment. Although this invitation to the pupils was supposed to be made the day after the experiment, one teacher failed to mention the matter until a week had passed.

Only a little over one fourth of the pupils wrote letters, but those who did so were equitably divided between girls and boys. The difference between the percentages of pupils in the various groups who had interest and enthusiasm enough to write letters probably is in itself a measure of the subjective values which the letters were hoped to evince.

An analysis and digest of the letters is shown in Table XII. The pupils' statements were classified according to their meaning under 30 headings, which appear in the table in the order of their frequency. Separate columns show how many of the statements come from pupils of the different groups. As a means for showing the fidelity of translations and classifications, as well as for clarifying the meaning of the 30 heading, an actual statement is quoted directly under each heading to typify the classification.

Considerable satisfaction is in store for one who takes time to muse over the details of Table XII. For him who "reads as he runs," two conclusions, both favoring the site-recital groups, are clear from the summary of the table:

1. *A larger percentage of the site-recital pupils (Groups I and II) wrote letters.* This difference was due solely to the Lockridge groups, for the two Clark groups were equal, and each equal to the percentage for the total.

2. *The total number of ideas contained in the letters from the site-recital pupils far exceeded that from the others.* A wide difference between

TABLE XII
AN ANALYSIS AND DIGEST OF STUDENTS' LETTERS TO MR. LOCKRIDGE AND MISS CLARK

Nature of Comments, with Examples	Frequencies of Comments by Groups				
	I	II	III	IV	Total
1. Enjoyment of the total experience "I believe that every one enjoyed being used in this experiment even though they call us 'guinea pigs.'"	8	9	8	3	28
2. Gratitude for the total experience "I want to think you for your interesting guidance."	7	9	1	5	22
3. Enjoyment of a part of the experience "I especially enjoyed the little old woman's showing us pictures of well-known people."	8	5	4	1	18
*4. Belief that site recitals are more valuable than class work "I really learned more one day than I ever could in class. I guess the cause was the atmosphere."	7	7	2	..	16
5. Favorable criticism of procedure "I think you did a very fine job of telling us what it was all about."	4	2	4	5	15
*6. Profit from the total experience "I learned a lot from hearing about the history of New Harmony."	4	3	..	3	10
7. Adverse criticism of procedure "If we had had longer time to think over what we saw, we would have done better on the test."	4	2	2	..	8
8. Interest in the total experience "My trip to New Harmony was one of the most interesting trips I have ever taken."	..	3	4	1	8
9. Interest in a part of the experience "I was very much interested in the Rappites' homes and public Buildings."	7	..	1	..	8
10. Hope to go to New Harmony again (or with Groups III and IV, the hope to go once sometime) Example from Groups I and II: "I should love to go again." Example from Groups III and IV: "This is a short letter, but I can't think of any more to say except that I hope to go to New Harmony some day."	1	2	2	3	8
*11. Appreciation of history and of social progress "The old buildings, and the lives of the Rappites and Owenites, have a deeper, more profound, meaning for me, now that I have seen the places where those historic things happened."	1	5	1	1	8
*12. Appreciation of a fact or of a contribution of the Rappites or Owenites "Their plaster seemed to be of a much finer quality than ours today."	3	2	..	2	7
13. Mention of a fact learned "That was the first time I ever heard of the Rappites or Owenites."	1	1	1	2	5
14. Hope for opportunity to study some other historic place in similar manner "I hope we have another chance to go some place with you."	1	3	1	..	5
15. Regret for not getting to make trip "I liked very much the study of New Harmony . . . but I do wish, however, I could have made the trip."	..	..	2	3	5
16. Approval of, and best regards for, The New					

Harmony Memorial "I think the work you and your organization are doing about rebuilding the old buildings there is grand."	..	3	..	..	3
17. Recommendation of more experiments "The experiment was much different from most of them. I think it would be nice to have an experiment every year."	..	..	1	2	3
*18. Abiding interests aroused "My friends and I often discuss the many things that we saw and learned at New Harmony."	1	2	..	..	3
19. Belief that the procedures in the Laboratory School during the experiment were better than the usual school experiences "I really think I learned more that one day than I ever learned in two weeks."	..	..	3	..	3
20. Desire to have others share the total experience "I think every one should go over there and observe the place, because lots of people don't know about its even existing."	2	..	..	..	2
21. Realization that cite-recital procedure is expensive "Of course I, and I'm sure all the others, understand it is a very expensive way of teaching."	1	1	..	..	2
22. Expression of sincerity "This is not a letter that the teacher dictates; this is from my heart."	..	1	..	1	2
*23. Grasp of a great principle "And another thing I discovered is that to build strong material things is not enough; cultural and spiritual things must also be had."	2	..	..	..	2
24. A question raised "I have a question to ask which I did not fully understand: Was the rock with the footprints on it brought from Pennsylvania?"	..	..	2	..	2
*25. Insight into modern society "I believe this helped me understand communism better than I did before."	1	..	..	..	1
26. Hope for the success of the experiment "I hope the experiment proved successful."	1	..	..	..	1
27. Desire to have lived in the Owenite community "I should like to have lived with David Dale Owen and worked with him in his museum."	..	..	1	..	1
28. Change of opinion "I was much more interested in the Rappites than the Owenites until I heard the character and personages of the Owenites, and now I'm all for the Owenites."	..	..	1	..	1
29. Worthy subject matter "From things that were said, I began to wonder why we had not studied this movement before."	..	..	1	..	1
30. Desire to see as careful study given Terre Haute "I don't see why, if you could find such interesting a history of New Harmony, you could not find about as interesting a one of Terre Haute."	..	..	..	1	1
Number of pupils who worte letters	9	11	9	5	34
Per cent of pupils who wrote letters	28	38	28	17	28
Mean number of ideas per letter	7.1	5.5	4.7	6.6	5.9
Total number of ideas	64	60	42	33	199

the two Clark groups in this respect is notable. Whereas they were the means in the percentage of letters written, they were the extremes in the average number of ideas per letter. Mr. Lockridge's home group had more ideas per letter than his site-recital group, but the total number of ideas from that group was less because so few of them wrote letters.

Still more gratifying from the viewpoint of site-recital enthusiasts is the superiority of their pupils' reactions over the others' in the number of expressions which denote interests or insights which the teaching of history is supposed to inculcate. There are seven starred headings in the table which indicate abiding objectives of history teaching more than the others, and which the instruments of this experiment should measure. The sum of frequencies of comments under these headings by the site-recital groups is 19 in each instance while it is only three for one of the home groups and six for the other. Under each of the seven headings the site-recital pupils far surpassed the pupils taught by the more conventional procedures.

Conclusions and Recommendations

Detailed conclusions from different phases of the experiment have been stated already. Therefore, only the major ones should be reviewed at the close.

1. *The two groups which were instructed at home did better in every comparison on the factual items in the first testing than the site-recital groups.*

2. *On the second testing for memory of facts, the superiority of the home groups over the site-recital groups was less in all cases than on the first. In other words, the site-recital groups remembered better the facts they learned than the home groups, although they did not learn so many. One of the site-recital groups did better than either of the home groups on the second factual test.*

3. *The superiority of the home groups over the site-recital groups in the first factual testing lay almost*

(Continued on page 22)

Democracy And The Junior High School

Paul J. Misner

As superintendent of schools at Glencoe, Illinois, Mr. Misner has an opportunity to practice the principles of progressive education which many of us can only theorize about. Another article by Mr. Misner, "Beyond School Walls," will apear in the November issue of the Journal.

In his recent book, *Experience and Education*, Mr. Dewey seems to come dangerously close to implying that some of us may have done a bit of careless thinking about the meaning of progressive education. It is probably true that in our first enthusiasm to abandon much that was wrong and bad in traditional education, mistakes were made. No matter how much we disagree with Mr. Nicholas Murray Butler when he characterizes progressive education as rabbit education, we cannot ignore the challenge that is implied in such a criticism. Whether we like it or not, there are a large number of people who still do not understand clearly what progessive educators mean when they talk about interests, freedom, needs, guidance, functional learning, and many other pedagogical terms. A distinguished professor of English in one of our large unviersities has recently been so unkind as to suggest that the behavior of children in progressive schools can be likened to that of skating bugs on a pond, darting hither and thither, assuming that the little pond on which they skate is the whole wide world.

One emphasis in Mr. Dewey's essay does stand out very clearly. It is the fact that progressive education, in its attempt to make real experience the basis of all learning, necessitates planning. Mr. Dewey even implies that some things which have been done in the names of progessive education suggest improvisation at the expense of planning. It is entirely true that children have wide and varied interests and purposes. It is equally true that no person can ever expect to live long enough to satisfy every interest and purpose that he may have. It is very important that children be given an opportunity to think about their many purposes and formulate the bases on which they may make intelligent choices. To make intelligent choices implies planning. Perhaps there is no greater need in our democracy today than the ability for all persons to be able to do group thinking, group planning, and group evaluation. When one observes critically the behavior of our distinguished Congress of the United States, this need becomes shockingly apparent.

Planning is an activity which presents the teacher with one of her most significant opportunities for guidance. Many critics of present day education insist that the function of the teacher is minimized greatly and that we expect too much of children. When careful attention is given to planning, such criticism cannot be justified because it is in this activity that the teacher can do her most effective work. Helping persons to clearly define their own purposes and to make wise choices based on thinking presents a very high level of teacher functioning. Planning is also completely essential to effective evaluation. It is only as pupils clearly define their purposes that they create any significant basis for continuous evaluation.

An interesting illustration of cooperative planning which involves pupils themselves is being carried on in the schools of Shaker Heights, Ohio. In this experiment we find a most desirable emphasis placed upon the participation of pupils in the formulation of the purposes of education in a democratic society. A committee consisting of the superintendent of schools, a principal, a teacher, a high school senior, and three citizens met frequently to discuss the educational needs of a democratic society. The group, after much deliberation, agreed upon the following ten statements:

1. The school should help pupils understand how the democratic process has developed.
2. The school should help develop in pupils a belief in the principles of American democracy.
3. The school should help develop in pupils a sense of responsibility for preserving our democracy.
4. The school should help develop in pupils a sense of responsibilty for improving the operation of the democratic process.
5. The school should help develop in pupils a sense of responsibility for maintaining free speech, free publication, and free assembly.
6. The school should help pupils become aware of the essential interedpendence of nations in the modern world.
7. The school should help pupils understand why other forms of economic, political, and social organization have developed in other countries.
8. The school should help develop in pupils a sense of loyalty to the democratic ideal based on understanding of the alternatives to the democratic process.
9. The community should employ teachers who are competent both in social understanding and in teaching ability.
10. The community should welcome and protect intellectual honesty on the part of teachers and pupils.

These ten statements were incorporated in a questionnaire which was sent to all senior high school stu-

dents, their parents, and all teachers and principals. These persons were asked to indicate their opinions of the several statements by checking one of the following responses: I agree; I am undecided; I disagree. Ninety-five and four tenths per cent of the 990 pupils returned the questionnaire as against 47.8 per cent returned by parents, and 84.1 per cent by teachers. Concerning the quality of the pupils' responses the report has this to say. "It might be said in passing that pupils' responses show considerable thoughtfulness in dealing with these issues. They wrote the most comments and voted the smallest number of straight tickets."

At the same time another study was being made. In this study an attempt was made to obtain from pupils, parents and teachers some opinions as to the educational needs of Shaker Heights children. The study was carried on by a committee consisting of a ninth grade pupil, twelfth grade pupil, two parents, (a father and a mother), a principal, a teacher, and the superintendent of schools. In October, 1937, the pupils, about 950 of them, in grades six, nine, and twelve, were asked to indicate on 3 x5 cards some of their educational needs as they saw them. They were instructed not to include such things as a knowledge of arithmetic, ability to read, or similar statements governing their school subjects. These were to be listed without regard to the responsibilty of the school or any other particular agency for meeting them. Each pupil was instructed to submit not more than ten cards. This request brought in approximately 5,000 cards, 2,000 from the twelfth grade, and 1,500 from each the sixth and ninth grades. The cards for each grade were classified and duplicates, or near duplicates, were combined. This process produced for each grade a list of 100 statements classified under nineteen headings. These three lists were then submitted to a ninth grade class for further condensation, with the understanding that the new list must include the essence of each of the 300 items. The list produced by this group was in turn submitted to some fifty 12A pupils for further checking.

The final result of the consideration by the two groups of pupils was a list of twenty items as follows:

1. Understand the human body and its care.
2. Possess a fair understanding of the importance and functions of sex.
3. Be able to render first aid in case of emergency.
4. Have an understanding of civic attitudes and responsibility of the individual.
5. Appreciate the traffic rules and regulations so that we shall be courteous pedestrians as well as capable drivers.
6. Learn to study efficiently and independently—to think individually.
7. Have a clear knowledge of the various occupations and their opportunities in order to make wise selections.
8. Acquire standards for criticizing plays, films, and radio broadcasts.
9. Build up an intelligent appreciation for the fine arts.
10. Participate in some enjoyable sport or hobby which will be of use in later life.
11. Appreciate the value of money and be able to budget an income to meet current living standards.
12. Develop mental and moral qualities which will encourage leadership and cooperation.
13. Assume our share of responsibility in our individual homes.
14. Be able to manage a household acceptably.
15. Know how to dress simply and attractively.
16. Budget time so that each day is well planned.
17. Be sure that at all times we are behaving in a distinctly courteous manner.
18. Acquire characteristics which will enable us to get along with other people.
19. Be able to express ourselves fluently, vividly, and accurately.
20. Acquire some basic religious belief.

The next step was the preparation of a questionnaire dealing with the responsibility of the school in meeting each of these twenty needs. In their replies persons were asked to indicate whether they thought the responsibility in meeting the needs belonged to the school entirely, in part or not at all.

On the basis of the results of the two studies conferences are now being carried on in Shaker Heights in which pupils, teachers, administrators and community adults are considering the educational needs of a democratic society as revealed by these inventories. In my judgment this experiment in Shaker Heights is most significant because it stresses clearly the importance of helping all persons co-operatively determine what the individual and social needs of education are in a democratic society.

An interesting plan for determining the interests of children and of using them as a basis for significant learning experiences is reported by the junior high school in Grosse Pointe, Michigan. A 7A homeroom group has been giving special consideration to hobby development, with the general aim or hope that every student might have a hobby of his selection by the close of the term. The group divided itself into several committees of similar interests. Materials were brought from home and each committee used one period to present its hobby. Each presentation was accompanied with viewpoints on development and value. Many habits of study and vocational interests have their beginning in these hobby enterprises.

Another interesting illustration of co-operative planning is reported by the Grosse Pointe schools. The 8B group plan their later course requirements in the homeroom. Parents are provided opportunities to participate in this activity. A main feature of the planning is the bringing of teachers, pupils, and parents together at the time of the 8A Open House at which time tentative course schedules are finally arranged and signed

Nearly 100 per cent of the parents attend these conferences.

Many persons are concerned about the apparent lack of discipline in progressive schools. Another report from the Grosse Pointe schools reveals an interesting illustration of the way in which discipline is developed through co-operative action, intelligently defined and critically evaluated.

Group too large for one room—had to be split in some way. Class decided basis of ability to take responsibility and show co-operation was best. A group was so chosen (15 students) worked in another room across the hall—teacher shuttled back and forth but spent two-thirds or more of time with large group. Small group students chose own chairman on basis of rating scale 1-2-3-4-5 on qualities of leadership. Chairman appointed committees necessary for planning and directing projects and this group insisted on finding out how they differed, and why, and advantages of each. Another project chosen grew out of an illustration the instructor had placed on the board showing a tree with branches and fruits—with root structures shown in dotted lines—captioned "roots of present lie deep in the past—fruits of the past ripen in the present." Several youngsters in this group suggested that we trace the fruits back to their origins and vice versa. This was done with many variations as to specific fruits. Another suggestion taken over by the whole class was that of checking our "class' ancestry back with "nationality, contributions, etc. portrayed in color. The picture looked like a patchwork quilt of many hues but the point of interrelationship, interdependence, and cosmpolition indebtedness was well portrayed."

In the junior high school in Winnetka, Illinois, pupils have organized and conduct in a real life-like manner the Skokie Live Stock Company, the School Store and Exchange, the Credit Union, and other agencies that give boys and girls real experience with economic problems as well as the means of conducting their daily activities within the school environment. The Credit Union was organized on the initiative of certain children almost exclusively. The idea of it came originally from a representative of one of the largest banks of the country when he was a guest of the Board of Directors of the school bank at a luncheon. Somewhat later a vice president of this bank repeated the suggestion, pointing out that the requirements for a Credit Union were so very simple that might be operated as an educational experience in a school quite realistically. Among the children who took the lead in getting the Credit Union going was a son of an active member of a local co-operative society.

Like the other business enterprises, the Credit Union serves real wants and needs of the children. Having a membership of about 60 children teachers, its transactions number twenty to thirty daily. Many of the loans are for lunch money, and under the present rules no single loan may exceed $1.50. The member borrowing must give a satisfactory account of the purpose, and must repay promptly or suffer an additional charge. Because it was impractical to figure interest on a lunch loan of 25 or 30 cents for a period of only one or two days, the membership adopted the policy of making no charge whatsoever for the first two days, provided the loan was paid within that time. Collateral is not required, and all loans are made quickly on a character and earning capacity basis. Of course, only persons of good reputation with reference to business obligations are accepted into membership, and every application for a loan is passed on by a responsible representative or representatives.

Earnings have been used to establish a reserve and to publish a newspaper, which is operated for educational purposes. Additional earnings are returned in the form of interest to depositors or reduction of interest to borrowers.

In Glencoe, Illinois, the Resources Committee of the Community Co-ordinating Council is co-operating with the schools in making a survey of the personal resources of the community. Pupils in the seventh and eighth grades are making a survey of the entire community. An interview record was prepared, which was designed to discover the vocational and avocational interest and activities of the citizens of the community. Pupils in the social living classes at the seventh and eighth grade levels were trained in the techniques of interviewing and are now actively engaged in calling upon the seventy-five hundred citizens. As these youthful citizens go from home to home, they learn of stamp and butterfly collections, or glassware, and of quilts. They locate collie fanciers and dahlia growers. They discover people who have traveled far and wide who have movies and stills to show and adventures to relate. They discover tricksters and magicians. Boats in the process of construction are found in basements. They contact trout and deep-sea fishermen, hunters, and horsemen. Business, professional people, and homemakers have interesting experiences to tell them. Much hidden talent in music, art, and drama is being unearthed.

The findings are being carefully recorded. When the survey is completed the results will be carefully tablulated and classified. It is anticipated that every school and every civic and social organization in the village will benefit by this file of information. In this manner, youth will serve and civic consciousness will be developed.

It is not to be implied that the foregoing are in any way unusual or represent the only experiments that are being carried on in pupil-teacher planning. They do, however, serve to illustrate some of the possibilities inherent in group planning and purposing that are developed around the needs of individuals and groups. It is my personal conviction that progressive education will make tremendous strides in these directions in the next few years. It becomes perfectly apparent that the straw men of interest, discipline, subject matter, can be quite completely destroyed when planning of this kind is provided. It will mean, however, that our tradi-

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Edward De Vere As Patron, 1550-1604

Hazel Tesh Pfenning

Dr. Pfennig, Professor of English at Indiana State Teachers College, was last year's recipient of the Press Club Award for distinguished service at the college, is a member of the Faculty Advisory Committee to the Administration, and is widely known as a lecturer on literary subjects.

The intensive study of the work and times of Edward de Vere during the last dozen years has had two good results: it has materially lessened the stigma that Nineteenth Century criticism, through misunderstanding and too hasty supposition, had attached to his name;[1] and it has established his place as, if not the original "Shakespeare," at least a genuinely important practitioner and patron of literature. He was unquestionably in a broad sense, a literary force in Elizatbethan—and therefore in all succeeding—times.

De Vere's status as patron is in general indisputable.[2] Sufficient evidence exists generally, and is more or less indirectly supplemented by the

data accumulated by Looney, Ward, and others, to show that he was "a generous patron of actors and of literary men."[3] The list of those who enjoyed his patronage includes John Lyly, Foulk Grenville, Gabriel Harvey, Anothony Munday, John Farmer, George Baker.[4] Besides many lesser poets and dramatists who surely were indebted to Dr. Vere for favors, it is entirely possible that some of the greater literary lights of Elizabeth's time bore to him a similar relationship.[5]

In discussing De Vere's status as a literary patron, however, it would be well to re-define "patron" in the light of the social and literary conditions of the time. A patron was not merely a financial backer, but an adviser as well, and even a teacher, inspirer, leader, and collaborator.[6]

"With the accession of Queen Elizabeth," J. Thomas Looney says "English men of letters found their greatest ally and supporter."[7] It was the fashion to be literary, even though not good form for the "noble" literateurs to publicly avow authorship.[8] Literature, like philanthropy today, was something to be encouraged but not too loudly used as self-advertising. Furthermore, the elegances of continental travel[9] and of court life encouraged literary sophistication and experiment. The "patron," therefore, was one who, too well-to-do to be obliged to make a living from writing, and too noble to condescend to the acknowledgment of so Grub-Streetish a profession,[10] nevertheless dallied in literature as in love, kept himself informed on the literary scene as intimately as on the gossipy social scene, read the outpourings of young university graduates with kindly and curious sympathy, welcomed the reputation of encourager and sponsor of literary experimentation, and himself played at the writing of literary tidbits of one sort or another. The ascertained poetic output of really unliterary members of the royalty and the nobility during the period of Elizabeth and her immediate predeccessors is comparatively very large.[11] Disregarding, for the sake of argument, De Vere's claims to works ascribed to others, we may point to over a score of fairly well authenticated poems acknowledged to be his own.[12]

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[1]George Frisbee, *Edward de Veres A Great Elizabethan*, (1931), p. 15. "But if we can forgive Sidney's biographers for painting Lord Oxford black in order to show up the virtues of their hero in greater relief, we can less readily forgive them for suppressing the truth." Note also De Vere's own sorrow, in later life, over his already slandered reputation, (p. 105):

"My spirtes, my heart, my wit and
and force,
in deep distress are drown'd:
The only loss of my good name is
of these griefs the ground."

[2]G. B. Harrison., *An Elizabethan Journal*, (1929), p. 411. (Quoted by Frisbee, p. 122). All other judgments about him are based on "probabilities," as is said of Shakespeare: "As any attempt to sketch the life of Shakespeare must be largely guesswork, the frequent presence of 'probability' and other adverbs of diffidence is unavoidable."

[3]J. William Hebel and Hoyt H. Hudson, *Poetry of the English Renaissance*, (1930), p. 932.

[4]Frisbee, *Ibid.*, p. 102. A letter printed in the *European Magazine*, June, (1788), p. 389, and quoted by B. M. Ward, *The 17th Earl of Oxford*, (1928), explains that John Southern also had Edward De Vere as patron.

[5]Frisbee, *Ibid.*, p. 22 ff. For one thing, acrostics and cipher codes were used not only to affirm authorship but to pay tribute to patrons and sweethearts. Perhaps some of the evidence alleged as proof of De Vere's authorship simply shows that he was the author's patron.

[6]Hebel and Hudson, *Ibid.*, p. 937. Greville had Oxford as patron, and later was himself patron to Camden, Daniel, and Davenant,—indicating that literary patronage was a frequent function of literary men.

[7]J. Thomas Looney, "*Shakespeare*" *Identified*, (1920), p. 180.

[8]Agnes M. C. Latham, *The Poems of Sir Walter Raleigh*, (1929). (Quoted by Frisbee, p. 59): "To publish at all was bad form, smacking of professionalism."

[9]Looney, *Ibid.*, 242 ff: "His (De Vere's) stay in Italy . . . had so marked an influence over him as to affect his dress and manners and cause him to be lapmooned as an 'Italionated Englishman'."

[10]Ward, p. 130: "In the sixteenth century, although many courtiers wrote poetry, it was an unwritten law that nothing of theirs should be printed while they were alive."

[11]Park, *Royal and Noble Authors*

[12]Hebel and Hudson, *Ibid.*, p. 102 ff. and p. 931 ff.

Edward De Vere, Earl of Oxford and high in favor at Elizabeth's court, wealthy in his own right and in the right of two successive wives, was not only able to be a financial patron but would have been expected to be one.[13] His career at the University of Cambridge was such as to ally him to literary interests:[14] in fact he already began to act the part of patron while there.[15]

On the other hand, the many testimonies to De Vere's learning and skill indicate that more than usual emphasis should be given in his case to that side of a patron's function which includes actual literary leadership.[16] Arthur Golding, his uncle and tutor, dedicated *Th' Abridgment of the Histories of Trogue Pompeius* to him.[17] John Brooke praised De Vere as a student; Gabriel Harvey collected many tributes on his classical learning,[18] and especially to his skill in Latin and English verse. He is known to have acted in a masque before the queen,[19] as well as to have taken part—most creditably—in tournaments,[20]—activities which formed the social and sentimental background of polite literature. He took part in literary controversy;[21] lampoons were written against him,[22] and poems—eight or more—were dedicated to him. De Vere was the social leader of the Euphuists—"Lord Oxford's Euphuists"[23] and his house was their headquarters. John Lyly, author of *Euphues*, was his private secretary, and Anthony Munday, author of *Zelauto* (a sort of salute to *Euphues*) was also attached to the De Vere household.[24] William Webbe gave De Vere (i. e., Oxford) the highest title—"the most excellent among the rest"—of poets. "Lord Oxford's position as the principal patron of these continental Romances of Chivalry," says Looney, referring to the exotic Euphuistic writing, "is a clear indication of the extent of his literary interests."[25] He liked literary atmosphere, and "chose for his companions wild spirits like Lord Survey, Charles Arundel, Francis Southwell, and Walter Raleigh. He turned Catholic, and then atheist, though this did not appear openly."[26]

De Vere seems, indeed, to have combined in himself the functions and qualities of Roman patron, French Leader of a salon (in part), the tutoring, advising, editing, and encouraging functions of certain modern editors and college professors, the daring unconventionality and exoticism of our E. E. Cummings and the earlier T. S. Eliot, the scholarly learning and ritualistic tendencies of our later T. S. Eliot and Paul Elmer More. "De Vere a precisionist," insists Looney, in one of his descriptive chapter subheadings. He was leader as well as backer of a literary school. Shakespeare's Sonnet 76-[27]

> "Why is my verse so barren of new pride?
> So far from variation or quicke change?
> Why with the time do I not glance aside
> To new found methods, and to compounds strange?"

might easily have been an allusion to the style and manner of De Vere and his group.[28]

The rather frequent reference to De Vere's spendthrift ways, in connection with the roistering literary company he kept, may be taken to be material evidence as to the lavishness of his services as a patron. The spleen poured on him from some quarters may in many cases be attributed to disappointment because of favor to some other literary aspirant. The anger directed at him from puritanical quarters may likewise help to show that he, as sponsor, leader, and patron, was responsible for much unconvential litearary activity which we look back on now with great interest.[29] Perhaps the picture of De Vere as the all-round patron is surer and truer than any other of this *Ignoto*[30] can now be.

[13]Frisbee, *Ibid.*, p. 11: "Lord Oxford (De Vere) was the Great Chamberlain, by virtue of which he took precedence over all Earls."

[14]Ward, p. 22: "That he left his mark on the University as a student of considerable ability, we have on the testimony of John Brooke, himself a graduate of Trinity College."

[15]Looney, *Ibid.*, p. 244: "Oxford, as Harvey admitted, had extended his customary munificence to the scholar when the latter was a poor student at the University."

[16]Ward, pp. 90, 141, 144. Oxford hoped secretly to become Poet Laureate.

[17]*Ibid.*, 23.

[18]*Ibid.*, 157.

[19]*Ibid.*, 163.

[20]*Ibid.*, 57, 60.

[21]*Ibid.*, 180-188.

[22]Looney, *Ibid.*, 188-189, 242 ff.

[23]a. Ward, p. 188.
b. Eva Turner Clark, *Axiophilus or Oxford alias Shakespeare*, p. 29.

[24]Ward, p. 187.

[25]Looney, p. 202.

[26]*Ibid.*, p. 143.

[27]Frisbee, p. 131.

[28]Frisbee, Chapter 14. It may not be amiss, incidentally, to note that De Vere's wife also wrote verse. Also, Ward, p. 96.

[29]Ward, p. 142: "We must remember, in the first place, that in Lord Oxford we are not dealing with a normal, humdrum man. His views, for example, on literature were sufficiently unorthodox to outrage the feelings of so conventional a man as Lord Burghly."

[30]Using this word in its derivative sense.

Democracy And Junior High

(Continued from page 13)

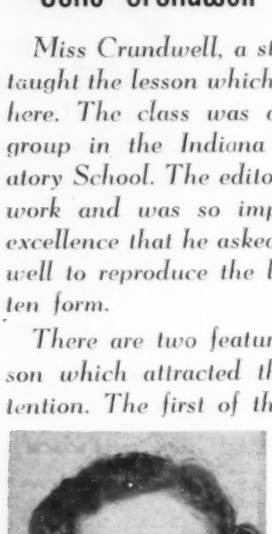
tionally departmentalized junior high schools, with emphasis upon subject matter, non-functionally dealt with in textbooks, must be abandoned quite completely. It will mean, further, that the present tendencies to develop schools as dynamic agencies within each community will be continued and extended.

A Poetry Lesson

June Crundwell

Miss Crundwell, a student-teacher, taught the lesson which is reproduced here. The class was a fourth-grade group in the Indiana State Laboratory School. The editor observed the work and was so impressed by its excellence that he asked Miss Crundwell to reproduce the lesson in written form.

There are two features of this lesson which attracted the editor's attention. The first of these is the exemplification of the three stages of knowing. The first stage, that of knowing as a whole, vaguely, ends with the first reading of the entire poem. The second stage, that of knowing by parts, thoroughly, ends with the teacher's saying, "When I was in school I sang this song. Would you like to hear it?" The third stage, that of knowing as a whole, thoroughly, constitutes the remainder of the lesson.



The second impressive feature of this lesson is the effective emotional learnings. The climax of this was near the end of the lesson when the pupils became so engrossed in the final reading of the poem that they spontaneously said, "—Raggle, Taggle Gypsies, O," in unison with the teacher each time the words appeared.

THE RAGGIE, TAGGLE GYPSIES

Teacher: What is a gypsy?
Pupil: A person who travels.
Pupil: They ride in big cars.
Pupil: They wear bright clothes.
Teacher: How many of you ever wanted to be a gypsy? (Many hands go up.) How would you like to hear a poem about the gypsies?
Pupils (in chorus): Yes, we would.
Teacher: What is another word for "inquire"?
Pupil: You ask a person something.
Teacher: That's right. What is a steed?
Pupil: I think it's another name for a pony.
Teacher: What are copses?
(No one knows.)
Teachers: Copses are bushes, usually very thick.
Teacher: How does one espy?
Pupil: I think he's a man who tries to find out what the other side is doing.
Teacher: That is a spy; the word we want is "espy." It means to see at at a distance. The name of our poem is "The Raggle, Taggle Gypsies." There are two people talking in our poem. Let's see if we can find who they are. (Teacher reads entire poem.)

There were three gypsies a-come to my door,
And downstairs ran this lady, O.
One sang high and another sang low,
And the other sang "Bonnie, Bonnie Biskay, O."

Then she pulled off her silken gown,
And put on hose of leather, O.
With the ragged, ragged rags about her door
She's off with the Raggle, Taggle Gypsies, O.

'Twas late last night when my lord came home,
Inquiring for his lady, O.
The servants said on every hand,
"She's gone with the Raggle, Taggle Gypsies, O."

"Oh, saddle for me my milk-white steed,
Oh, saddle for me my pony, O.
That I may ride and seek my bride
Who's gone with the Raggle, Taggle Gypsies, O."

Oh, he rode high and he rode low,
He rode through woods and copses, O.
Until he came to an open field,
And there he espied his lady, O.

"What makes you leave your house and lands?
What makes you leave your money, O?
What makes you leave your new-wedded lord
To go with the Raggle, Taggle Gypsies, O?"

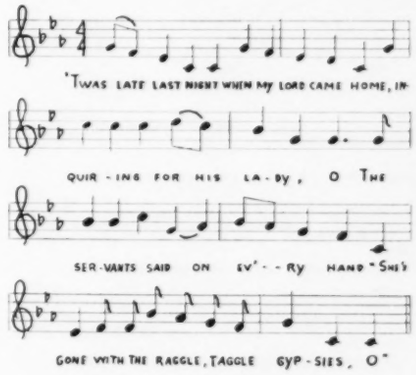
"What care I for my house and lands?
What care I for my money, O.
What care I for my new-wedded lord?
I'm off with the Raggle, Taggle Gypsies, O."

"Last night you slept on a goose-feather bed,
With the sheet turned down so bravely, O.
To-night you will sleep in the cold, open field,
Along with the Raggle, Taggle Gypsies, O."

"What care I for your goose feather bed,
With the sheet turned down so bravely, O?
For to-night I shall sleep in a cold, open field,
Along with the Raggle, Taggle Gypsies, O."

Teacher: Could you tell who was talking?
Pupil: There was a man.
Pupil: I think there was a girl.
Teacher: What did they say to each other?
(No one knows.)
Teacher: Would you like to hear it again and find out what they were talking about?
Pupil: Yes.

Teacher: There were three gypsies a-come to my door,
And downstairs ran this lady, O.
One sang high and another sang low,
And the other sang "Bonnie, Bonnie Biskay, O.
Teacher: What picture did you see?
Pupil: One sang, "Bonnie, Bonnie Biskay, O."
Pupil: There were three gypsies.
Teacher: Let's see what happens next.
Then she pulled off her silken gown,
And put on hose of leather, O.
With the ragged, ragged rags about her door
She's off with the Raggle, Taggle Gypsies, O.
Teacher: What happened in the second part of our story?
Pupil: The lady pulled off her gown and went with the gypsies.
Teacher: What kind of gown did this lady have on?
Pupil: A silken gown.
Teacher: What does this tell us about the lady?
Pupil: That she was rich.
Teacher: 'Twas late last night when my lord came home,
Inquiring for his lady, O.
The servants said on every hand,
"She's gone withe Raggle, Taggle Gypsies, O."
Teacher: What happened in this stanza?
Pupil: The man comes home.
Pupil: The servants tell him that the lady has gone with the Raggle, Taggle Gypsies, O.
Teacher: "Oh, saddle for me my milk-white steed,
Oh, saddle for me my pony, O,
That I may ride and seek my bride
Who's gone with the Raggle, Taggle Gypsies, O."
Teacher: What does the man do to find his wife?
Pupil: He looks for her on his pony.
Teacher: Oh, he rode high and he rode low,
He rode through woods and copses, O,
Until he came to an open field,
And there he espied his lady, O.
Teacher: Where did he finally find his bride?
Pupil: In a field.
Teacher: "What makes you leave your house and lands?
What makes you leave your money, O?
What makes you leave your new-wedded lord
To go with the Raggle, Taggle Gypsies, O?"
Teacher: What does he say to his lady, O?
Pupil: He asks her why she left her husband.
Pupil: He wants to know why she went with the gypsies, O.
Teacher: "What care I for my house and lands?
What care I for my money, O.
What care I for my new-wedded lord?
I'm off with the Raggle, Taggle Gypsies, O."
Teacher: What does the bride say to this man?
Pupil: She doesn't care.
Pupil: She's off with the Raggle, Taggle Gypsies, O.
Teacher: "Last night you slept on a goose-feather bed,
With the sheet turned down so bravely, O.
To-night you will sleep in the cold, open field,
Along with the Raggle, Ttaggle Gypsies, O."
Pupil: The man tells her that she won't have a nice bed to sleep in tonight.
Teacher: "What care I for your goose-feather bed,
With the sheet turned down so bravely, O?
For to-night I shall sleep in a cold, open field,
Along with the Raggle, Taggle Gypsies, O."
Teacher: How does the bride answer the new-wedded Lord?
Pupil: She tells him that she still wants to live with the Raggle, Taggle Gypsies.
Pupil: She doesn't care about the husband.
Pupil: She doesn't care about money either.
Teacher: When I was in school I sang this song. Would you like to hear it?
Pupils: Yes.
Teacher: The first two stanzas were not set to music so I'll read them and sing the rest.
There were three gypsies a-come to my door,
And downstairs ran this lady, O.
One sang high and another sang low,
And the other sang "Bonnie, Bonnie Biskay, O."

Then she pulled off her silken gown,
And put on hose of leather, O.
With the ragged, ragged rags about her door
She's off with the Raggle, Taggle Gypsies, O.

'TWAS LATE LAST NIGHT WHEN MY LORD CAME HOME, IN-
QUIR-ING FOR HIS LA-DY, O THE
SER-VANTS SAID ON EV'-RY HAND "SHE'S
GONE WITH THE RAGGLE, TAGGLE GYP-SIES, O"

Teacher: Reads the poem again as a whole.
(Children responded spontaneously by saying, " . . . Raggle, Taggle Gypsies, O," in unison every time these words wore mentioned in the poem.)
Teacher: How did you like this poem?
Pupils: We liked it; won't you read it again?

To What Extent Modern Physics Should Be Incorporated In A High School Physics Course

Cecil W. Martin Terre Haute Public Schools

The most fascinating and interesting parts of physics are those which are either in the process of active formation or which have just recently been developed. The desire of the young student to know something of modern physics has been recognized, with the result that chapters on mod-

ern physics have been included in recent textbooks. The term "modern physics" is sometimes taken to be synonymous with the restricted term "atomic physics," but in this study it includes the increasing number of basic facts contributed to physics since the discovery of the X ray in 1895. The term "classical physics" deals with the traditional or theoretical physics as taught prior to 1895.

This study was undertaken for the purpose of collecting data to determine to what extent modern physics should be incorporated in a high-school physics course. The field of investigation was confined to definite problems related to:

1. The amount of space devoted to the treatment of topics in modern physics as compared to the amount of space devoted to the treatment of Boyle's Law, Ohm's Law, or Surface Tension in textbooks of secondary-school physics. (These topics were chosen as typical topics or problems in classical physics.)

2. The amount of time devoted to the treatment of the typical topics in classical physics. (Questionnaire.)

3. To determine through questionnaire if there was an advanced course offered in modern physics in these schools, and

4. If there was differentiation in the junior and senior year between a course in physics for students who wish to become specialists, or go on to college, and senior science for those who do not intend to go on to college.

Research is the chief tool of science. So, as a result of a study of recent textbooks, questionnaire returns, and special problems dealing with the teaching of high-school physics, an effort has been made to determine the practices and trends in the presentation of modern physics.

In collecting the data for this study, it was necessary to make a survey and sample the suitable available textbooks in the field of secondary-school physics which were adapted to the high-school pupil. The textbooks were arranged chronologically as to date copyrighted and assigned a table number that was used in the study. There were seven textbooks selected, and they have been representd by the numbers one to seven, inclusive.

The following is a summary of the amount of space devoted to the treatment of the various topics in modern physics as compared to the amount of space devoted to the treatment of classical physics topics in seven textbooks surveyed.

TABLE I

COMPARISON OF THE AMOUNT OF SPACE DEVOTED TO TOPICS IN MODERN AND CLASSICAL PHYSICS

Modern Physics Topics	More Space	About as Much Space	Less Space	No Space
X rays	1234567			
Photoelectric effect "electric eye"	2457	136		
Cyclotron and nuclear physics	7	12345		6
Cathode rays and television	1234567			
Isotopes and "heavy water"			57	12346
Radioactivity	5	7	12346	
Radium	157	3	46	2
Electronic emission and radio tube	234567	1		
Cosmic rays	5		13467	2
Relativity, special		4	267	135
Quantum and radiation	5	7	2346	1
Rutherford atom		17	3456	2
Bohr's theory of atom	567	14	23	
Crystal structure	7		346	125
X ray diffraction				1234567
Electron diffraction				1234567
Wave mechanics			3	124567
Ionization	4	367	125	
Brownian movements			14567	23

Table I is divided into four space columns. The textbook numbers are placed in the various columns to denote the amount of space that was devoted to topics in modern physics as compared to topics in classical physics.

This table shows that X rays, cathode rays and television were given more space than the other topics in the seven textbooks; and that, with one exception, textbook number one, more space was devoted to electronic emission and radio tube in all the texts. More space was also given to the photoelectric effect or "electric eye" in textbooks two, four, five, and seven. The two topics, X ray diffraction and electron diffraction, were given no space in any of the seven texts, while wave mechanics was given a little space in only one text, number three. Generally, all texts devoted the same or less space in their treatment of most of the nineteen modern physics topics.

Since the questionnaire method was used in gathering some of the data for this study, the author has endeavored to evaluate some of his findings relative to the extent modern physics should be incorporated in a high-school physics course. In this investigation, no definite method of sampling was used in choosing the schools for the study. However, the high schools chosen were determined by articles contributed to *School Science and Mathematics* by physics instructors from these schools.

Of twenty-six questionnaires mailed to these instructors, twenty-two, or 84.6 per cent, co-operated. The proportion responding was quite satisfactory when compared with the usual reaction to questionnaire investigations.

Concerning the question of differentiation in the junior and senior year between a course in physics for students who wish to become specialists, or go on to college, and senior science for those who do not intend to go on to college, the response was indicative of present trends in the teaching of high-school physics. Ten instructors, or 45.5 per cent stated that they differentiated between college and non-college groups, while twevle, or 54.5 per cent, said that they did not.

Nevertheless, whether there is differentiation or not, the tendency is in common with the present-day general educational objectives, directing attention to the development of individuals as the purpose of the course, and adapting the material to hte abilities and the needs of the pupils.

All schools contributing to this study offer a regular physics course for those pupils who wish to become specialists, or go on to college, or show serious interest and have sufficient background.

Also, these schools verified this question of differentiation by offering senior science for those students who do not intend to go on to college, or who are not prepared or inclined to do work in physics. The course is sometimes called practical or applied physics, according to the survey, and nine schools, or 40.9 per cent, offer a course of this type. Seven different textbooks were listed as being used for this course in the nine schools. Four schools have their own course of study, or are formulating such a course; no specific text is being used, but the work is supplemented by several textbooks.

Only eight, or 36.3 per cent, think that it is advisable to offer an advanced course in modern physics for special students, this course to comprise radio and electronics, or probably such a course under a heading of general modern physics. However, in a large (or even a small) school it is advisable to add a unit on modern physics at the end of the regular course. This plan is prevalent in nearly all high-school texts, where the last chapter or so is devoted to the treatment of modern physics. Only two schools responding to this study offer advanced courses in modern physics. This was a semester course in radio physics.

The major problem of this questionnaire concerning how much time was devoted to the treatment of each of the nineteen topics of modern physics as compared with the treatment of a typical subject in classical physics, such as Boyle's Law, or Ohm's Law, or Surface Tension, was found to be enlightening although not encouraging. The majority of the schools are giving less time to the treatment of modern physics topics. This seems to verify the fact that classical physics still remains the fundamental physics course and that modern physics (theoretical) has very little place in physics for general

(Continued on page 22)

TABLE II
COMPARISON OF THE AMOUNT OF TIME DEVOTED TO TOPICS IN MODERN AND CLASSICAL PHYSICS

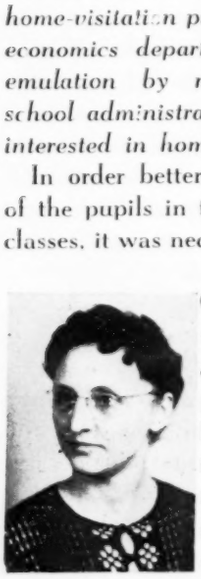
Modern Physics Topics	More Time	About as Much Time	Less Time	No Time
X rays	4.5	36.5	59.0	0
Photoelectric effect "elecrtic eye"	9.0	36.5	50.0	4.5
Cyclotron and nuclear physics	0.0	22.7	63.6	13.7
Cathode rays and television	4.5	32.0	54.5	9.0
Isotopes and 'heavy H_2O'	0.0	4.0	32.0	64.0
Radioactivity	0.0	18.2	77.3	4.5
Radium	0.0	22.7	68.2	9.1
Electronic emissions and radio tube	9.1	40.9	40.9	9.1
Cosmic rays	0.0	18.2	63.6	18.2
Relativity, special	0.0	0.0	45.5	54.5
Quantum and radiation	0.0	0.0	63.6	36.4
Rutherford atom	0.0	9.0	45.5	45.5
Bohr's theory of atom	0.0	54.5	45.5	0.0
Crystal structure	0.0	4.5	41.0	54.5
X ray diffraction	0.0	4.0	32.0	64.0
Electron diffraction	0.0	0.0	36.4	63.6
Wave mechanics	0.0	22.7	45.5	31.8
Ionization	4.5	41.0	50.0	4.5
Brownian movements	0.0	36.4	63.6	0.0
TOTAL	1.7	21.3	51.4	25.6

Installing A Home Visitation Program In The Home Economics Department Of The Laboratory School

Caroline Stein Kelso

Mrs. Kelso teaches home economics in the Indiana State Laboratory School. Her experience in installing a home-visitation program in the home-economics department is worthy of emulation by more teachers and school administrators than just those interested in home economics.

In order better to meet the needs of the pupils in the home economics classes, it was necessary to learn their home environment. Getting acquainted with the mother and father of each pupil, seeing the home situation, and then interpreting the pupil needs is an experience which has been of tremendous value.



Is it significant for the teacher to know that 54 per cent of the eighth-grade girls have mothers who work outside the home; that 37 per cent of the entire group of girls have no facilities for refrigeration; that 42 per cent of the entire group have fathers who are in skilled labor, and 26 per cent commen labor? How shall the teacher approach the matter of personal cleanliness to girls when 25 per cent of their homes have no bathrooms?

The first step was to secure definite and true data concerning each pupil in the classes. A compilation called *A Home Economics Check List* was used. This personal check list was made after a thorough study of similar forms in use at many schools. Those questions were se-

After a careful study of the pupil data sheets, the teacher held a private conference with each pupil. The facts were discussed that the girl had given about herself, and the teacher noted mentally those facts that might prove profitable to check with the mother. During the conference other pertinent data were gleaned that would assist as a background for a home visit that was to follow.

For the cumulative record file of the pupils, which is a permanent record kept in the home-economics office, another data form was compiled which was made after a thorough study of similar forms in use at many schools. This form is headed:

HOME INFORMATION BLANK

Indiana State Teachers College
Laboratory School

(This information is for confidential use only)

The information from the personal check list is transferred to this permanent cumulative record form. Those data considered doubtful were entered in pencil until checked with the mother during the home visit. This form contained very much more information than the personal check list filled out by each pupil. There were five pages in all. The additional data were gleaned by a tactful, friendly visit in the home with the mother.

Having had this private conference with each pupil, having carefully studied the information given on the personal check list concerning the pupil and the home, the teacher was ready to make a profitable home visit.

The mother was not informed of the intended visit. Some schools favor the guise of a friendly chat. Never a formal appointment at a definite time; but it is true that such a system scares the mother, makes her suspicious, and, if the teacher gets into the home, she finds that the stage has been all set. The situation is not a true family picture.

The visit is either made or ruined when the mother answers the ring of the door bell. The mother eagerly invites you in for a friendly chat provided there has been a tactful approach, a carefully worded introduction, and a constant watching of the facial expressions made by the mother in order properly to switch the approach if there is need. After being invited into the home, one must sense the situation immediately without the appearance of glancing around. Is the mother busy ironing, stretching curtains, washing, baking a pie? If so the visitor should offer assistance or sit with her while she continues her work.

During the entire visiting program each mother cheerfully welcomed a visit from her girl's teacher, and in each case the mother requested a return visit. In fact, some mothers enjoyed getting in more intimate touch with the school to the extent of sending word by their girls asking when the teacher would come for another chat. If the mother considered the visit a friendly chat, and did not sense that the teacher was gathering information, then the visit was successful.

The secret of all successful visiting as with all interviewing, is to create an atmosphere of informality, on the face apparently only a conversational chat; but the teacher must control the trend of the meeting. Of course the mother is allowed to do most of the talking; but the teacher quietly steers the conversation at the proper moment so as to produce the desired information. Pencil and paper never appear. Notes are all made mentally. The sight of pencil and paper would immediately put the mother on the defensive. Properly conducted, the visit gives all the desired data and should the visit develop into a Major Probe.

At first it is difficult for the teacher to remember the mental notes after leaving the mother's presence, but practice soon develops this ability. It is best after getting well away from the home to record into a small book all the data obtained until such time as the information can be entered on the permanent cumulative record form at the office.

Some mothers are employed, which necessitates evening and Sunday visits. Such visits do not produce so good results as the others for the reason that the pupil invariably is present at such times and assumes a decidedly prominent and interested place in the conversation. This situation creates difficulty in getting the more intimate facts that cannot really be gained successfully with the pupil present.

Not all the desired data should be sought on the first visit. The first should be primarily for the purpose of gaining the friendship of the mother and dispersing any idea held by some that something must be wrong or the teacher would not be coming to the home. Only such information should be sought that can be obtained in talk along general lines. This first meeting is merely to establish a partnership with the mother.

The second or return visit is made about one month later. This time the door is swung wide open, not just slightly ajar for fear of magazine, brush, book, or shoestring saleswomen. Now is the opportunity by adroitly steering the conversation to obtain the more intimate data desired which were not attempted during the first visit. But direct questions are still taboo. The technique remains the same but friendly overtures have widened the swath.

On these second visits, the teacher takes with her a student teacher from the college in order to have her observe the technique of successful visitation, especially the method of gaining the desired information through informal conversation without direct questioning. The secret lies in knowing when the mother's talk on other than desired topics can be stopped without offense to the mother. Student teachers *should not* be taken on the first visit. Such a mistake is fatal. From the visitation point of view, student teachers are not an asset even on the second visit but a liability requiring teactful handling by the teacher. But student teachers should have the experience of making these trips in order to be able to institute such programs in their future positions after graduation. Each student teacher is required as a part of her course in Supervised Teaching in home economics to make two visits to the homes of her pupils.

After the round of second visits is made, all the data from the pupils' personal check lists plus the data from the two series of visits are entered upon the cumulative record forms in the office. Likewise, all doubtful statements made by the pupils on the personal check lists which had been entered in pencil on the permanent cumulative records are changed to ink to conform with the check made with the mothers.

Of what value has this program been and what use can be made of the results obtained? Summations and percentages of data were compiled in order to realize definite effects which this information should have on our home-economics curriculum.

It was found that a large chart covering the entire program was the simplest and the best plan in assembling the data. The far left column is for the pupils. The top has forty-nine column headings covering most all items sought in the visits: the pupil, her home environment, her future hopes. Each pupil is given a number to appear on the chart in the far left column in place of her name to keep the morbidly curious from prying into the lives.

This chart is grouped by classes. At the bottom of each class is a summation—percentages or averages for each heading. One can see at a glance how each pupil stands with her group as a whole. At the extreme bottom of the chart is a similar summation for all pupils in the program. Thus one can see how any pupil stands with reference to all pupils in such headings as are not affected by the age of the pupil.

The detailed information on the large chart is shown by the following exaample of an eighth-graph girl taken directly from the chart:

Mother

Age—36
Occupation—laundress
Descent—English
Education—7th grade
Special interests—none
Church—none
Health—poor

Father

Age—39
Occupation—W. P. A.
Descent—English
Education—3rd grade
Special interests—none
Church—none
Health—good

Pupil

Marital status of parents—divorced
Language spoken in home—English
Private lessons—none
Plan for future education—none
Study conditions—poor
Hours of sleep—nine
Hours of undirected leisure a week—thirty-two
What does the pupil do in leisure time—crochet, housework
Hours of household duties a week—nine
Summer activities—none
Travel—none
Religion—Protestant
Likes to read—very little
Magazines pupil enjoys—none
Particular interests—quilts
Preference for associations—one age

Home

Type—poor
Location—city
Number of rooms—five
Bathroom—none
Number in home—four

Luxuries

Automobile—none
Piano—none
Radio—none
Refrigeration—none

Reading materials

Magazines—none
Newspapers—Yes, local
Library—none

Family finances

Budget—no
Who buys groceries—pupil
How ar groceries purchased—cash daily
Who buys clothing—pupil
Type of community—poor
Health of child—average

Every wide-awake teacher immediately sees the value in definite statis-

solely in their better grasp of the tics of this kind. The permanent cumlative record on file in the teacher's office includes many more items than are listed above as shown on the large chart. The chart includes those items that most affect the curriculum. The other items on the cumulative record form obtained from visitation are those concerning the younger life of the pupil that are used in counseling with the child.

Besides these many valuable statistics, there lies other value. This personal relationship with the mothers of pupils in the classrooms gives a feeling of nearness, sympathy, and understanding of pupils that is invaluable. Another indirect value is that personal joy and satisfaction to the teacher from association and companionship with mothers and fathers of today.

A Comparison Of Site Recitals

(Continued from page 10)

Owenite items, and the fading in their memory by the time of the second testing was greater on the same items.

4. In general, the pupils who stayed home excelled comparable ones in the site-recital groups in both testings for historical judgment also, but the degree of difference was less proportionally than in the factual test, as well as less significant statistically. In other words, whatever differences the tests revealed were more in the facts of the day's learnings than in judgments based on such facts.

5. All groups made considerably lower scores on the second testing for factual learnings, but most of them made slightly higher scores on the second testing for judgment.

6. Neither teaching procedure resulted in greater consistency of pupils' judgment.

7. In both testings, and on both factual and judgment items, the pupils of subnormal intelligence in each home group excelled their peers in the site-recital groups more than the pupils of normal or superior intelligence in the home groups excelled their peers in the other groups. In other words, recitals proved least satisfactory with subnormal pupils.

8. Subjective estimates indicated that the pupils who went on the site-recital trips manifested greater interest in social studies later than the pupils who remained at home. This same tendency was borne out to a slight degree by pupils' own statements of their interest in their various school subjects.

9. Letters written by students after the experiment was over showed clearly a richer degree of social insight on the part of the site-recital groups.

10. It is altogether likely that a combination of class work and site recitals would prove to be superior to either clone .The motivation value of site recitals probably will justify their continuation. One-day trips of such great length (nearly one hundred thirty miles) are impractical though.

To What Extent Modern Physics

(Continued from page 19)

education. This is in close correlation with the trend in present-day textbooks of elementary physics, where fundamental principals of classical physics still guide the physics instructor, the modern theories and their applications being condensed into an unit at the close of text.

From the study, only 1.7 per cent devote more time to the treatment of X rays, photoelectric effect, cathode rays and television, electronic emission and radio tube, and ionization than to the treatment of the typical subjects in classical physics. Twenty-one and three-tenths per cent used about as much time for the treatment of all the topics, except the special theory of relativity, quantum and radiation, and electron diffraction, as for the treatment of the "typical topics." A majority, or 51.4 per cent, devote less time to the treatment of all nineteen topics, while 25.6 per cent devote no time at all to the topics. However, some of the schools included a few of the topics in this phase of physical science in their chemistry classes. Full details of this are shown in Table II. The figures in the table are per centages of schools.

Conclusion

1. Schools differentiate, to some extent, in a course of study in physics for college and non-college groups. Where there is no differentiation as far as courses are concerned, schools adapt their material to the abilities and needs of the pupils.

2. The regular elementary textbooks devote considerable space to the treatment of topics of modern physics. But in nearly all of them the classical content is compressed to some extent to allow for an extra unit of modern physics (theoretical) at the close of the text.

3. Some of the larger high schools offer advanced courses in modern physics, but, generally speaking, only a small per cent of physics instructors deem it advisable to offer these courses.

4. On the whole, LESS TIME is devoted to the treatment of opics in modern physics than to "typical subjects" of classical physics.

Recommendations

Owing to the fact that the majority of the pupils in the secondary schools are and will be consumers of science rather than producers, the curriculum should contain two courses in physics whose purposes are alike but differ in difficulty.

Teachers should humanize the teaching of physics. They must go out into industry to find materials and information that should be organized into these courses.

All of the material in physics should be adapted to the abilities and needs of the pupils. We must teach for understanding, to develop appreciation, and to develop thinking.

Specialization and general education may supplement each other, but neither one can be substituted for the other.

Around the Reading Table

Luce, Henry R. *The American Century* (With Comments by Dorothy Thompson, Quincy Howe, John Chamberlain, Robert G. Spivack, and Robert E. Greenwood.) Farrar and Rinehart, Inc., New York, 1941, 89 pp.

"Americans are unhappy," says *Time, Life,* and *Fortune* publisher Henry R. Luce in this little volume, which is made up of a reprint of an article which appeared in *Life Magazine* early last February and of the reactions which it called forth from some of the commentators upon the national and international scene. The principal cause for this condition, Mr. Luce believes, is that we are in a state of funk—we have been offered the "complete opportunity for leadership," but, awed by the stupendous difficulties and dangers involved in accepting that leadership, we have responded only with nervousness, gloominess, or apathy.

The antidote for this state of national neuroses, Luce declares, is action. To employ his own words, we must, in order to regain our health and peace of mind:

> . . . accept wholeheartedly our duty and our opportunity as the most powerful and vital nation in the world and in consequence . . . exert upon the world the full impact of our influence, for such purposes as we see fit and by such means as we see fit.

When it comes to specifying just what America's "purposes" should be, the author becomes somewhat vague. As regards "means", however, he is extremely explicit. He would have the United States not so much go to England's assistance as take over England's war, win it, and dictate to England, Germany, and the rest of the world the kind of peace the United States wants.

In regard to this matter of America's going to war, Mr. Luce's article reflects a most remarkable candor, in view of the fact that it was written at a time when war-minded cabinet members and senators were talking only of all aid short of war and advocating the lease-lend bill as a means of keeping us out of war. Mr. Luce, indeed, was not only honest enough to declare then his belief that we ought to get into the war; he was frank enough to state baldly that we we were already in it.

Concerning the kind of world which he would have America create in the role of dominant leadership he prescribes for her, Mr. Luce has, in spite of his vagueness and perhaps inadvertantly, dropped a few hints. In addition to "sharing with all peoples our Bill of Rights, our Declaration of Independence," he would like to permit all peoples to enjoy—at a fee no doubt—"our magnificent industrial products" and to profit by "our technical skills." When it comes to staking out four areas of life and thought in which America may seek to realize the vision of the American century, he mentions first of all the "*economic* (italics mine) area." He does make professions of favoring a world economic order "compatible with freedom and progress," but fails to state freedom for what or progress toward what. There is significance in his declaration that in the decades to come "Asia will *be worth* to us (the United States) exactly zero—or else it will *be worth* (italics mine) to us four, five, ten billions of dollars a year."

This all sounds suspiciously as if Mr. Luce's "purposes" may be the creation of a new order of imperialism different from the old only in the fact that it has Yankee trimmings, that Uncle Sam moves into the front office and John Bull accepts the status of junior partner.

Of those who have commented upon Mr. Luce's program, Miss Thompson sounds a resounding amen, chiefly, one gathers, because she doesn't like Mr. Hitler, and Mr. Luce's program calls for fighting Hitler. Mr. Howe is doubtful whether the author is strictly accurate in reducing America's position in the world of the present and future to one of a choice between isolationism and internationalism. Mr. Chamberlain likes Mr. Luce (he works for him), but he doesn't think much of his ideas. Mr. Spivack doesn't like either Mr. Luce or Mr. Hitler, but he does like Mr. F. D. Roosevelt. And Mr. Sherwood doesn't like Mr. Hitler or Mr. Robert M. Hutchins (how Hutchins got into the discussion isn't quite clear, but he does like both Mr. Luce and Mr. Roosevelt.) None seems to get at the central point of whether or not the embarkation by the United States upon a program of imperialistic world domination would be good for what ails the country.

Mr. Luce, as well as the others who have contributed to the volume, is a professional in the art of putting his views into writing, and the book, aside from providing reading matter provocative of thought, is an excellent example of journalism of opinion.

—Hubert Smith

Buros, Oscar Krisen, *The Nineteen Forty Mental Measurements Yearbook*, Highland Park, N. J. 1941, 674 pp.

The size and scope of the Nineteen Forty Yearbook when compared with the first of the series published in 1933 are suggestive of the rapid development in the field of testing. This one large volume contains not only information concerning recently-published tests but also detailed reviews of the best known earlier tests and books on testing.

The outstanding improvement of this volume over the 1938 yearbook lies in the greater number and longer critical reviews included. There are over five hundred reviews from one hundred seventy-eight journals. Other English-speaking countries are much better represented. The reviews are not only complete in many cases but are both favorable and unfavorable.

Another valuable feature of the present issue is the very complete reference list. For example, fifty-five research references are given for the Seashore Measures of Musical Talent. With the help of these references and the reviews users of tests should be able to make more satisfactory selections than is often the case. This volume should be in every school office and in every library always available to those who are interested in tests.

The editor is also rendering a distinct service to the profession by making available the judgment of competent reviewers. It will encourage authors to produce fewer and better tests.

—E. L. Abell

Mersand, Joseph. *What Do Our Students Think?* The Modern Education Chapbooks, New York, 1941. 36 pp.

This tiny booklet is a report of four studies in pupils' reactions to radio, moving pictures, newspapers, and plays. This review will present an analysis of the findings under each of the four classifications.

Radio Makes Readers. The influence of radio programs upon the leisure reading of school children was the only phase of the effects of radio listening discussed. One hundred fifty boys in the third year of high school served as the basis of the report. It was learned that: (1) school children study radio program listings and dial those programs they desire to hear; (2) entertainment seems to be the quality on radio programs which attracts the youthful listener; and (3) high school pupils read those plays which they hear as radio dramatizations after hearing the radio performance. The writer believes that studies of "after-radio" tastes would be of invaluable assistance in planning educational radio programs.

Educational Values of the Cinema. Teachers of English in high schools have come to recognize the cinema as a powerful educational instrument. This realization leads to a need for studies concerning after-school cinema choices. From 173 pupils, it was learned that the most popular pictures were "Dead End" and "Captains Courageous." From a list of 1,346 student viewing of 162 movies, the author declares there is a need for studies to determine the exact effect of movie dialogue upon our speech habits and upon behavior and ideas of high school pupils.

Why Boys Read Newspapers. Most teachers are seriously interested in the development of correct newspaper habits. A survey of 180 pupils revealed the following: (1) 94 per cent read a daily newspaper; (2) in New York, the morning newspaper, "Daily News," and the evening newspaper, "World Telegram," are the most read papers; (3) the "Daily News" and the "Times" are the most popular; and (4) more than half the pupils spend more than forty-five minutes a day reading the newspaper.

Why Boys Like Plays. A survey of a group of boys in the junior year of high school revealed that boys like those plays which they first see performed on the legitimate stage. The surveyor suggested that the proper teaching of drama necessitates the seeing of the play produced before it is assigned for reading.

As a whole, this booklet is interesting reading. Its cursory treatment of the material does not lend itself to other than a reading for entertainment.

—Clarence M. Morgan

Dunlap Academic Preference Blank by Jack W. Dunlap. World Book Co., Yonkers-on-Husdon, N. Y. 1940.

This preference blank is for the use of counselors in determining the academic areas in which the pupil is most likely to succeed. The basic assumption is that pupil likes and dislikes as revealed by responses on the blank bear a definite relation to his achievement.

There are two forms of the blank, each with ninety items, and norms for grades six through nine are given in percentile ranks. The time for giving is about fifteen minutes and scoring is made easy with stencils. This measuring device is the result of a long period of experimentation and study. Starting with 433 items and eliminating all items that did not show a high degree of constancy and predictive value the author finally reduced the list to 180. Correlations were computed with intelligence scores and with subtests of the Metropolitan Achievement Test and the Stanford Achievement Test using the biserial-r technique. Correlations range from .32 to .72 and are thus high enough to suggest a strong relationship but not high enough to give accurate individual predictions.

The blank should prove very useful in furnishing clues as to the subjects in which the pupil is likely to do best.

—E. L. Abell

Consumer Education

Consumers Union of U. S., Inc. *Labeling.* Consumers Class Plans, General Series. Consumers Union of U. S., Inc., New York, March, 1941.

No subject in the school curriculum is receiving more attention today than consumer education, due to national defense programs, rising prices, and the use of alloys and substitutes for materials in consumer goods needed for national defense. Among the low-cost teaching materials available from special consumer testing agencies are the Consumer Class Plans issued each month by Consumers Union. These plans are short teachable one-period lesson plans for classroom teaching with the CU Reports. The reports may be used as source material by the teacher or preferably as classroom material by the students.

In the lesson plan, *Labeling*, the aims, special techniques, motivation, examples, suggested problems and references are outlined. Other lesson plans on such subjects as bath towels, sheets, curtains, brands and special techniques are available in the Textile Series and Course Planning Series.

Copies of the Class Plans may be had by writing to Consumer Union, 17 Union Square, New York.

—Bonnie Barrick